

WHAT IS CLAIMED IS:

1. An information transmission system is characterized by two transmission lines and a plurality of transmission terminals that are connected thereto to transmit information to each other, wherein each of said transmission terminals is built up to receive information from a sender through said two transmission lines and is equipped with a relaying means which, when receiving said information from only one of said transmission lines, sends out the received information to the other transmission line.

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15 2. The information transmission system according to claim 1, wherein said information transmission system is equipped with a means which preferentially relays information to a relaying means of a transmission terminal close to said sender.

20 3. The information transmission system according to claim 1, wherein each of said transmission terminals is equipped with a means which uses said two transmission lines to send information from said terminal to the other transmission terminal.

25 4. The information transmission system according to claim 3, wherein said information transmission system is equipped with a means which preferentially relays information to a relaying means of a transmission terminal close to said sender.

5. The information transmission system according to

claim 1, wherein each of said transmission terminals is equipped with a means which uses one of said two transmission lines to send information from said terminal to the other transmission terminal.

5 6. The information transmission system according to claim 5, wherein said information transmission system is equipped with a means which preferentially relays information to a relaying means of a transmission terminal close to said sender.

10 7. An information transmission system for railway vehicles comprising transmission lines which connect a plurality of vehicles constituting a railway train and a plurality of transmission terminals which are connected to said transmission lines to transfer information among said vehicles, wherein each of said transmission terminals in respective vehicles is built up to receive information from a sender in the other vehicle separately through said two transmission lines and equipped with a relaying means which, when receiving said information from only one of said transmission lines, sends out the received information to the other vehicle through the other transmission line.

20 8. The information transmission system according to claim 7, wherein each of said railway vehicles has two of said transmission terminals each of which has a means to use said transmission lines when said transmission terminal sends information from the vehicle having the transmission

terminal to the other vehicle.

9. The information transmission system according to claim 7, wherein each of said railway vehicles has two of said transmission terminals each of which has a means to respectively use one of said transmission lines when said transmission terminal sends information from the vehicle having the transmission terminal to the other vehicle.

10. An information transmission method of an information transmission system comprising two transmission lines and a plurality of transmission terminals which are connected to said transmission lines to transmit information to each other, wherein said method comprises the steps of causing said transmission terminals to receive information from a sender separately through said two transmission lines, detecting that said transmission terminal is receiving information only one of said two transmission lines, and sending the received information to the other transmission line.